

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of the claims:

1. (Currently Amended) A SOI-based MEMS device comprising:
a base layer;
a device layer;
an insulator layer between the base layer and the device layer; and
a deposited layer having a portion that is spaced from the device layer;
the device layer being between the insulator layer and the deposited layer,
the device layer having structure, the deposited layer forming a cap to seal the structure.
2. (Original) The MEMS device as defined by claim 1 further including an anchor extending from the deposited layer to contact the device layer.
3. (Original) The MEMS device as defined by claim 1 wherein the device layer includes circuitry.
4. (Original) The MEMS device as defined by claim 4 wherein the deposited layer includes a material having a deposition temperature, the circuitry being capable of operating after being subjected to the deposition temperature.
5. (Original) The MEMS device as defined by claim 1 wherein the deposited layer includes germanium.

6. (Original) The MEMS device as defined by claim 1 wherein an air space separates the device layer from the deposited layer.
7. (Original) The MEMS device as defined by claim 6 wherein the device layer has a top surface with given material formed thereon, the air space separating the given material from the deposited layer.
8. (Currently Amended) A MEMS inertial sensor comprising:
a single crystal silicon layer having a top surface, the single crystal silicon layer also having sensing structure and a second component; and
a deposited additional layer adjacent to the top surface of the single crystal silicon layer, the deposited additional layer having a portion that is spaced from the top surface, the deposited additional layer being conductive to serve as an interconnect for the sensing structure on the single crystal silicon layer, the deposited additional layer electrically connecting the sensing structure with the second component.
9. (Original) The MEMS inertial sensor as defined by claim 8 wherein the deposited additional layer has a portion that is contacts the top surface.
10. (Original) The MEMS inertial sensor as defined by claim 8 wherein the single crystal silicon layer is a part of a silicon-on-insulator wafer, the sensor further including a base layer and an insulator layer separating the base layer and the single crystal silicon layer.
11. (Original) The MEMS inertial sensor as defined by claim 8 wherein the single crystal silicon layer is a bulk silicon wafer.

12. (Original) The MEMS inertial sensor as defined by claim 8 wherein at least an air space separates the top surface from the deposited additional layer.

13. (Original) The MEMS inertial sensor as defined by claim 8 wherein the sensing structure includes a movable member spaced from the deposited additional layer by an air space.

14. (Currently Amended) The MEMS inertial sensor as defined by claim 8 wherein the second component includes circuitry, the deposited additional layer electrically connecting the sensing structure with the circuitry ~~forms an electrode capable of capacitively coupling with at least a portion of the single crystal silicon layer.~~

15. (Withdrawn) A method of forming an SOI-based MEMS device, the method comprising:

providing a SOI-based MEMS wafer having a top face;
depositing a sacrificial layer on the top face; and
depositing an additional MEMS layer on the sacrificial layer.

16. (Withdrawn) The method as defined by claim 15 wherein the additional MEMS layer is comprised of a material having a deposition temperature that is less than about 450 C.

17. (Withdrawn) The method as defined by claim 15 further comprising removing at least a portion of the sacrificial layer.

18. (Withdrawn) The method as defined by claim 15 wherein the additional MEMS layer forms a cap for at least a portion of the top face of the SOI-based MEMS wafer.

19. (Withdrawn) The method as defined by claim 15 further comprising applying surface micromachining processes to the additional MEMS layer.
20. (Withdrawn) A method of forming a MEMS inertial sensor, the method comprising:
 - providing a single crystal wafer having a top face;
 - depositing a sacrificial layer on the top face; and
 - depositing an additional MEMS layer on the sacrificial layer.
21. (Withdrawn) The method as defined by claim 20 further comprising removing at least a portion of the sacrificial layer.
22. (Withdrawn) The method as defined by claim 20 further comprising applying surface micromachining processes to the additional MEMS layer.
23. (New) A MEMS device comprising:
 - a single crystal silicon layer having a top surface, the single crystal silicon layer also having a movable structure; and
 - a deposited additional layer adjacent to the top surface of the single crystal silicon layer, the deposited additional layer having a portion that is spaced from the top surface, the deposited layer forming a stationary actuator for actuating the movable structure.
24. (New) The MEMS device as defined by claim 23 wherein the deposited additional layer forms an air space between additional deposited layer and the top surface of the single crystal silicon layer.

25. (New) The MEMS device as defined by claim 23 wherein the single crystal silicon layer includes circuitry.

26. (New) The MEMS device as defined by claim 23 wherein the structure includes inertial sensing structure.